

THE CLAIMS

The following listing of claims replaces all prior versions and listings of claims in the application.

1. (Previously Presented) A method of providing physical port security in a digital communication system, comprising:

receiving a frame of digital data at a network device;

generating a destination port bit map based on the destination address information contained in said frame of digital data;

generating a physical port security bit map of allowed destination ports, wherein said physical port security bit map is generated based on one or both of information in said received frame of digital data and/or port security information associated with said network device;

comparing, using at least one logical operation, said destination port bit map with said physical port security bit map to generate a bit map of allowed destination ports; and

forwarding said frame of digital data to one or more of said allowed destination ports.

2. (Previously Presented) The method of claim 1, wherein said comparing comprises conducting a logical AND on said destination port bit map and physical port security bit map.

3. (Previously Presented) The method of claim 1, comprising generating said physical port security bit map using source address information contained in said digital data frame.

4. (Previously Presented) The method of claim 1, comprising generating said physical port security bit map using destination address information contained in said digital data frame.

5. (Previously Presented) The method of claim 1, comprising generating said physical port security bit map using a combination of source and destination address information contained in said digital data frame.

6. (Previously Presented) The method of claim 1, wherein said address information comprises IP address information.

7. (Previously Presented) The method of claim 1, wherein said frame of digital data is received by a router.

8. (Previously Presented) The method of claim 1, wherein said frame of digital data is received by a network file server.

9. (Previously Presented) The method of claim 1, wherein said network device comprises one or more physical ports connected to a local area network.

10. (Previously Presented) The method of claim 1, wherein said received frame of digital data is received from a process that is inside of said network device.

11. (Previously Presented) The method of claim 1, wherein said physical port security bit map is generated dynamically based on a variable parameter.

12. (Previously Presented) A system for providing physical port security, comprising:

at least one processor within a network device, said network device having a communications port for receiving digital data from a digital communications system and two or more physical data ports for forwarding said digital data, said at least one of processor enables:

generation of a destination port bit map based on destination address information contained in said received digital data;

generation of a physical port security bit map of allowed destination ports, wherein said physical port security bit map is generated based on one or both of information in said received frame of digital data and/or port security information associated with said network device;

comparing, using at least one logical operation, of said destination port bit map with said physical port security bit map to generate a bit map of allowed destination ports; and

forwarding of said digital data to one or more of said allowed destination ports.

13. (Previously Presented) The system of claim 12, wherein said at least one processor enables conducting of a logical AND operation on said destination port bit map and said physical port security bit map.

14. (Previously Presented) The system of claim 12, wherein said physical port security bit map is generated using source address information contained in said digital data.

15. (Previously Presented) The system of claim 12, wherein said physical port security bit map is generated using destination address information contained in said digital data.

16. (Previously Presented) The system of claim 12, wherein said physical port security bit map is generated from a table of stored allowed physical port addresses that varies depending on a combination of source and destination address information contained in said digital data.

17. (Previously Presented) The system of claim 12, wherein said address information comprises IP address information.

18. (Previously Presented) The system of claim 12, wherein said network device comprises a router.

19. (Previously Presented) The system of claim 12, wherein said network device comprises a network file server.

20. (Previously Presented) The system of claim 12, wherein said two or more physical data ports of said network device are connected to a local area network.

21. (Previously Presented) The system of claim 12, wherein said digital data comprises IP data.

22. (Previously Presented) The system of claim 12, wherein said at least one processor retrieves said physical port security bit map based on IP source address contained in said digital data.

23. (Previously Presented) The system of claim 12, wherein said network device is the source of said received digital data.

24. (Previously Presented) The system of claim 12, wherein said physical port security bit map is dynamically altered based on a variable parameter.